STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _10/550,525A_
Source: _1FWP_
Date Processed by STIC: _10/12/06_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
> **http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):** U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: _10/550,525A_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics
Wrapped Aminos
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 ____ Invalid Line Length
The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino Numbering
The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ____ Non-ASCII
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length
Sequence(s) ____ contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0 "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7 ____ Skipped Sequences (OLD RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences (NEW RULES)
Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 ____ Use of n's or Xaa's (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213> Response
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)

11 ____ Use of <220>
Sequence(s) ____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules

12 ____ PatentIn 2.0 "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa
"n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

AMC – STIC Systems Branch – 03/02/06

```
RAW SEQUENCE LISTING                      DATE: 10/12/2006
PATENT APPLICATION:  US/10/550,525A       TIME: 09:36:42

Input Set : A:\Sequence listing.ST25.txt
Output Set: N:\CRF4\10122006\J550525A.raw
```

```
        3 <110> APPLICANT: Emory University
        5 <120> TITLE OF INVENTION: CXCR4 Antagonists and Methods of Their Use
        7 <130> FILE REFERENCE: 50508-2331
C-->    9 <140> CURRENT APPLICATION NUMBER: US/10/550,525A
C-->   10 <141> CURRENT FILING DATE: 2005-09-22
       12 <160> NUMBER OF SEQ ID NOS: 20
       14 <170> SOFTWARE: PatentIn version 3.3
       16 <210> SEQ ID NO: 1
       17 <211> LENGTH: 14
       18 <212> TYPE: PRT
       19 <213> ORGANISM: Artificial
       21 <220> FEATURE:
       22 <223> OTHER INFORMATION: sequence of T140
       25 <220> FEATURE:
       26 <221> NAME/KEY: MISC_FEATURE
       27 <222> LOCATION: (3)..(3)
       28 <223> OTHER INFORMATION: X = Nal
       30 <220> FEATURE:
       31 <221> NAME/KEY: MISC_FEATURE
       32 <222> LOCATION: (8)..(8)
       33 <223> OTHER INFORMATION: X = dLys
       35 <220> FEATURE:
       36 <221> NAME/KEY: MISC_FEATURE
       37 <222> LOCATION: (12)..(12)
       38 <223> OTHER INFORMATION: X = Cit
       40 <400> SEQUENCE: 1
W-->   42 Arg Arg Xaa Cys Tyr Arg Lys Xaa Pro Tyr Arg Xaa Cys Arg
       43 1               5                   10
       46 <210> SEQ ID NO: 2
       47 <211> LENGTH: 14
       48 <212> TYPE: PRT
       49 <213> ORGANISM: Artificial
       51 <220> FEATURE:
       52 <223> OTHER INFORMATION: sequence of TN14003
       55 <220> FEATURE:
       56 <221> NAME/KEY: MISC_FEATURE
       57 <222> LOCATION: (3)..(3)
       58 <223> OTHER INFORMATION: X = Nal
       60 <220> FEATURE:
       61 <221> NAME/KEY: MISC_FEATURE
       62 <222> LOCATION: (6)..(6)
       63 <223> OTHER INFORMATION: X = Cit
       65 <220> FEATURE:
```

see pp 1-2, 4, 6

Does Not Comply Corrected Diskette Needed

please give a further description (e.g.,) source of genetic material, function, etc.)

see item 11 on Error Summary Sheet

```
 66 <221> NAME/KEY: MISC_FEATURE
 67 <222> LOCATION: (8)..(8)
 68 <223> OTHER INFORMATION: X = dLys
 70 <220> FEATURE:
 71 <221> NAME/KEY: MISC_FEATURE
 72 <222> LOCATION: (12)..(12)
 73 <223> OTHER INFORMATION: X = Cit
 75 <400> SEQUENCE: 2
W--> 77 Arg Arg Xaa Cys Tyr Xaa Lys Xaa Pro Tyr Arg Xaa Cys Arg
 78 1               5                   10
 81 <210> SEQ ID NO: 3
 82 <211> LENGTH: 18
 83 <212> TYPE: PRT
 84 <213> ORGANISM: Artificial
 86 <220> FEATURE:
 87 <223> OTHER INFORMATION: sequence of T22
 89 <400> SEQUENCE: 3
 91 Arg Arg Trp Cys Tyr Arg Lys Cys Tyr Lys Gly Tyr Cys Tyr Arg Lys
 92 1               5                   10                  15
 95 Cys Arg
 99 <210> SEQ ID NO: 4
100 <211> LENGTH: 21
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial
104 <220> FEATURE:
105 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
107 <400> SEQUENCE: 4
108 aataaatct tcctgcccac c                                   21
111 <210> SEQ ID NO: 5
112 <211> LENGTH: 21
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial
116 <220> FEATURE:
117 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
119 <400> SEQUENCE: 5
120 aaggaagctg ttggctgaaa a                                  21
123 <210> SEQ ID NO: 6
124 <211> LENGTH: 19
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial
128 <220> FEATURE:
129 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
131 <400> SEQUENCE: 6
132 taactacacc gaggaaatg                                     19
135 <210> SEQ ID NO: 7
136 <211> LENGTH: 19
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial
140 <220> FEATURE:
```

```
141 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
143 <400> SEQUENCE: 7
144 tcttcttaac tggcattgt                                      19
147 <210> SEQ ID NO: 8
148 <211> LENGTH: 19
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial
152 <220> FEATURE:
153 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
155 <400> SEQUENCE: 8
156 tctttgccaa cgtcagtga                                      19
159 <210> SEQ ID NO: 9
160 <211> LENGTH: 19
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial
164 <220> FEATURE:
165 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
167 <400> SEQUENCE: 9
168 gtttcagcac atcatggtt                                      19
171 <210> SEQ ID NO: 10
172 <211> LENGTH: 19
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial
176 <220> FEATURE:
177 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
179 <400> SEQUENCE: 10
180 catcatggtt ggccttatc                                      19
183 <210> SEQ ID NO: 11
184 <211> LENGTH: 19
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial
188 <220> FEATURE:
189 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
191 <400> SEQUENCE: 11
192 tcctgcctgg tattgtcat                                      19
195 <210> SEQ ID NO: 12
196 <211> LENGTH: 19
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial
200 <220> FEATURE:
201 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
203 <400> SEQUENCE: 12
204 tcctgtcctg ctattgcat                                      19
207 <210> SEQ ID NO: 13
208 <211> LENGTH: 19
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial
212 <220> FEATURE:
213 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
```

RAW SEQUENCE LISTING   DATE: 10/12/2006
PATENT APPLICATION: US/10/550,525A   TIME: 09:36:43

Input Set : **A:\Sequence listing.ST25.txt**
Output Set: **N:\CRF4\10122006\J550525A.raw**

```
215 <400> SEQUENCE: 13
216 gcatcgactc cttcatcct                                        19
219 <210> SEQ ID NO: 14
220 <211> LENGTH: 19
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial
224 <220> FEATURE:
225 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
227 <400> SEQUENCE: 14
228 ggaaagcgag gtggacatt                                        19
231 <210> SEQ ID NO: 15
232 <211> LENGTH: 25
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial
236 <220> FEATURE:
237 <223> OTHER INFORMATION: siRNA
239 <400> SEQUENCE: 15
240 aauaaaaucu uccugcccac cdtdt                                 25
243 <210> SEQ ID NO: 16
244 <211> LENGTH: 25
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial
248 <220> FEATURE:
249 <223> OTHER INFORMATION: siRNA
251 <400> SEQUENCE: 16
252 aaggaagcug uuggcugaaa adtdt                                 25
255 <210> SEQ ID NO: 17
256 <211> LENGTH: 20
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial
260 <220> FEATURE:
261 <223> OTHER INFORMATION: CXCR4-specific primers
263 <400> SEQUENCE: 17
264 gaaccctgtt tccgtgaaga                                       20
267 <210> SEQ ID NO: 18
268 <211> LENGTH: 20
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial
272 <220> FEATURE:
273 <223> OTHER INFORMATION: CXCR4-specific primers
275 <400> SEQUENCE: 18
276 cttgtccgtc atgcttctca                                       20
279 <210> SEQ ID NO: 19
280 <211> LENGTH: 20
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial
284 <220> FEATURE:
285 <223> OTHER INFORMATION: primer
287 <400> SEQUENCE: 19
```

what is its' source?

RAW SEQUENCE LISTING   DATE: 10/12/2006
PATENT APPLICATION: **US/10/550,525A**   TIME: 09:36:43

Input Set : **A:\Sequence listing.ST25.txt**
Output Set: **N:\CRF4\10122006\J550525A.raw**

```
288 gacaggatgc agaaggagat                                      20
291 <210> SEQ ID NO: 20
292 <211> LENGTH: 20
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial
296 <220> FEATURE:
297 <223> OTHER INFORMATION: primer
299 <400> SEQUENCE: 20
300 tgcttgctga tccacatctg                                      20
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/12/2006
PATENT APPLICATION: US/10/550,525A   TIME: 09:36:44

Input Set : **A:\Sequence listing.ST25.txt**
Output Set: **N:\CRF4\10122006\J550525A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 3,8,12
Seq#:2; Xaa Pos. 3,6,8,12

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

VERIFICATION SUMMARY   DATE: 10/12/2006
PATENT APPLICATION: US/10/550,525A   TIME: 09:36:44

Input Set : A:\Sequence listing.ST25.txt
Output Set: N:\CRF4\10122006\J550525A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:42 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0